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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,117	11/07/2001	Paer von Malmberg	030481-0181	4675

22428 7590 02/27/2004

FOLEY AND LARDNER
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EXAMINER

FOREMAN, JONATHAN M

ART UNIT	PAPER NUMBER
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3736

DATE MAILED: 02/27/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,117

Applicant(s)

MALMBORG ET AL.

Examiner

Jonathan ML Foreman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 4-9, 11, 25 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10, 12-24, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.5. 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/3/04 has been entered.

Election/Restrictions

Newly added claims 25 and 26 are drawn to a non-elected species. Embodiment I shown in Figure 5 was elected in Paper No. 7. Accordingly, claims 25 and 26 have been withdrawn from further consideration.

Information Disclosure Statement

The information disclosure statement filed 11/7/01 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been placed in the application file, and the information referred to therein has been considered by the examiner as to the merits.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1 – 3, 10, 12, 17 - 21, 23, 24, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,938,624 to Akerfeldt et al. in view of U.S. Patent No. 5,501,228 to Lafontaine et al.

In regards to claims 1- 3, 10, 12, 17 - 21, 23, 24, 27 and 28, Akerfeldt et al. discloses a male connector for a guide wire which comprises a core wire having a layer of insulating material (Col. 5, lines 15 – 24) and being made of an insulating material (Col. 7, lines 22 – 25), a plurality of conductive members spaced apart longitudinally along the core wire (Col. 4, lines 5 – 9), a plurality of conductors disposed along the core wire, each conductor being connected to the proximal end of a corresponding conductive member and having a layer of insulating material (Col. 4, lines 54 – 67). Akerfeldt et al. discloses that continuous insulating material is disposed between the core wire and the conductive members, a minimum of insulating material being provided the side opposite the cavity (Figure 14; Col. 6, lines 40 – 44). Akerfeldt et al. discloses the core wire in the male connector being separate from the core wire in the guide wire (Col. 6, lines 58 – 65). Akerfeldt et al. discloses the core wire in the male connector being an extension of the core wire in the guide wire. The core wire is shown to have a shape so that a longitudinal cavity is provided inside the male connector (Col. 6, lines 40 – 44). The cavity disclosed by Akerfeldt et al. is adapted remain substantially intact when the male connector is slightly bent. Akerfeldt et al. fails to disclose the core wire not having a solid circular cross-section, being asymmetrical, having the conductors being in an extrapolated circumference of the core wire, and having one diameter taken on a plane normal to its longitudinal axis being shorter in length than another diameter of the core wire taken on the same plane, wherein the cavity is adjacent to a surface of the core wire forming a terminus of the shorter diameter. However, Lafontaine et al. discloses a male connector (Figures 7 – 10) for a guide wire wherein the

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core wire (34) does not have a solid circular cross-section, is asymmetrical, has the conductors being in an extrapolated circumference of the core wire, and has one diameter taken on a plane normal to its longitudinal axis being shorter in length than another diameter of the core wire taken on the same plane, wherein the cavity is adjacent to a surface of the core wire forming a terminus of the shorter diameter (Figure 6b; Col. 14 – 31). It would have been obvious to one having ordinary skill in the art to modify the core wire as disclosed by Akerfeldt et al. to include the cross-section as disclosed by Lafontaine et al. to form a space through which the conductors can extend (Col. 8, lines 21 – 25).

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,938,624 to Akerfeldt et al. in view of U.S. Patent No. 5,501,228 to Lafontaine et al. as applied to claim 12 above, and further in view of U.S. Patent No. 6,373,705 to Koelle et al.

Akerfeldt et al. in view of Lafontaine et al. discloses insulation material, but fails to disclose the insulation material being a polymer matrix having ceramic particles. Koelle et al. teaches an insulating layer that is preferably made of a polymer into which ceramic particles have been introduced (Col. 4, lines 44 – 46). It would have been obvious to one having ordinary skill in the art to use an insulating material as disclosed by Koelle et al. with the male connector as disclosed by Akerfeldt et al. in view of Lafontaine et al. in order to conduct heat from the conductors effectively. Additionally, the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

5. Claims 14, 15, 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,938,624 to Akerfeldt et al. in view of U.S. Patent No. 5,501,228 to Lafontaine et al. as applied to claim 12 above, and further in view of U.S. Patent No. 6,371,972 to Wallace et al.

Akerfeldt et al. in view of Lafontaine et al. discloses an insulating material, and discloses that the core wire can be made of an insulating material. However, Akerfeldt et al. in view of Lafontaine et al. fails to disclose the insulating material consisting of a metal oxidized to a ceramic state. Wallace et al. teaches that oxides with a high dielectric constant are preferred for their electrically resistive insulative properties. Wallace et al. further teaches that such oxides can be formed as a sleeve or hypotube (Col. 7, line 1 – 20). It would have been obvious to one having ordinary skill in the art, in view of Wallace et al. to modify the insulating material as disclosed by Akerfeldt et al. in view of Lafontaine et al. to consist of a metal oxidized to a ceramic state in order to take advantage of the electrically resistive insulative properties of such oxides. Additionally, the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan ML Foreman whose telephone number is (703)-305-5390. The examiner can normally be reached on Monday - Friday 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F Hindenburg can be reached on (703)308-3130. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9306 for regular communications and (703)-872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0858.



JMLF

February 22, 2004



MAX F. HINDENBURG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700